RTIP ID# *(required)*: ORA020115

TCWG Consideration Date: July 27, 2010

Project Description *(clearly describe project)*

The proposed project would consist of the construction of a bridge structure that would connect Camino Capistrano to the intersection of Cabot Road and Merit Circle, within the southern portion of the City of Mission Viejo. Specifically, the bridge would: 1) begin at the northerly terminus of Camino Capistrano, where it transitions into an access road to the Moulton Niguel water District (MNWD) reclamation plant; 2) proceed north approximately 0.25-mile; 3) turn west to cross over the existing Southern California Regional Rail Authority (SCRRA)/Metrolink/Burlington Northern Santa Fe (BNSF) railroad tracks; and 4) connect to the intersection of Cabot Road and Merit Circle. The bridge structure would have one lane in each direction, with a separate left turn lane from westbound Camino Capistrano to southbound Cabot Road and a separate right turn lane from westbound Camino Capistrano to northbound Cabot Road. The proposed project would include signalization improvements at the proposed Camino Capistrano/Cabot Road/Merit Circle intersection. Along Camino Capistrano and the bridge's approach to Cabot Road, the bridge abutments would include mechanically stabilized earth (MSE) retaining walls to minimize the proposed project's impact area. The proposed bridge would feature a total of four columns, all of which would occur within the Camino Capistrano right-of-way (ROW). The maximum distance between columns would be 150 feet, and the average bridge width would be 52 feet. The bridge crossing would maintain a 25-foot, 7-inch minimum clearance over the railroad ROW. The total length of all proposed project facilities would be 1,800 linear feet, while the bridge would be 706 linear feet (measured along the proposed Camino Capistrano centerline).

As stated above, a reclamation plant operated by MNWD takes access from the northerly terminus of Camino Capistrano. Thus, the proposed project would maintain access to the MNWD facility via a proposed access road within the existing Camino Capistrano ROW. This access road would also be utilized for continued emergency access to the shopping center located between El Paseo and Interstate 5 (I-5), north of Oso Parkway.

Proposed project implementation would require that the City of Mission Viejo acquire approximately 0.45-acre of privately-owned ROW (owned by the Saddleback Technology Park Association), just east of the existing intersection of Cabot Road and Merit Circle. This ROW would be necessary to connect the proposed bridge structure to the Cabot Road/Merit Circle intersection. A 0.13-acre MNWD easement (owned by Mission Viejo Mini/Venture, LLC) would be required to allow for a "turnaround" area at the northerly terminus of Camino Capistrano, to allow for vehicles to turnaround prior to traveling north on towards the MNWD reclamation facility. The proposed project would also require a 0.20-acre aerial easement from the Orange County Transportation Authority (OCTA) to allow for the bridge crossing over the railroad alignment. Finally, the proposed project would require a Memorandum of Understanding (MOU) between the City of Mission Viejo and the OCTA to allow for use of approximately 0.03-acre within the adjacent railroad ROW. This area would be necessary to accommodate for the encroachment of a small portion of the proposed MNWD access road, and would require the relocation of the existing chain-link fence along the eastern boundary of the OCTA ROW.

Type of Project *(use Table 1 on instruction sheet)*

Intersection signalization/Roadway realignment

County	**Narrative Location/Route & Postmiles:** Approximately 0.34-mile along Camino Capistrano connecting to the intersection Cabot Road and Merit Circle **Caltrans Projects – EA#** 12-931687L
Orange	

Lead Agency: City of Mission Viejo

Contact Person	**Phone#**	**Fax#**	**Email**
Mark Chagnon	949.470.3091	949.581.5394	mchagnon@cityofmissionviejo.org

Hot Spot Pollutant of Concern *(check one or both)* **PM2.5 X PM10 X**

Federal Action for which Project-Level PM Conformity is Needed *(check appropriate box)*

Categorical Exclusion (NEPA)		**EA or Draft EIS**	**FONSI or Final EIS**	**PS&E or Construction**	**Other**
	X				

Scheduled Date of Federal Action: Late 2010/Early 2011

NEPA Delegation – Project Type *(check appropriate box)*

Exempt	Section 6004 – Categorical Exemption	X	Section 6005 – Non-Categorical Exemption

Current Programming Dates *(as appropriate)*

	PE/Environmental	ENG	ROW	CON
Start	6/2009	3/2011	11/2011	3/2012
End	3/2011	11/2011	3/2012	12/2012

Project Purpose and Need (Summary): *(attach additional sheets as necessary)*

The purpose of the Cabot-Camino Capistrano Bridge Improvement Project is to construct a bridge that connects Camino Capistrano to Cabot Road within the City of Mission Viejo. Currently, the northern segment of Camino Capistrano can only be accessed from Avery Parkway to the south. This creates difficulties in the timely access of businesses and facilities located at the northerly extent of Camino Capistrano, since Avery Parkway is located approximately 1.75 miles south of the northerly terminus of Camino Capistrano. The proposed project would introduce a northerly access to Camino Capistrano that would substantially improve connectivity within the project area.

Cabot Road is one of the main north-south roadways leading into Laguna Hills and Laguna Niguel. It is also the main access to Crown Valley Parkway, Avery Parkway, Oso Parkway, and La Paz Road, all of which serve as interchanges to I-5. The proposed project is needed to improve traffic circulation throughout the project area, which includes portions of the cities of Mission Viejo, Laguna Niguel, and Laguna Hills. The proposed project is intended to improve the effectiveness of Camino Capistrano as a frontage road to I-5, by allowing access from the northern terminus of Camino Capistrano, instead of only from Avery Parkway to the south.

The proposed project would result in a reduction in traffic congestion at the Avery Parkway/I-5 interchange by allowing convenient access to other I-5 interchanges (i.e., Crown Valley Parkway, Oso Parkway, and La Paz Road) via Cabot Road. In addition, the proposed project would provide improved access to the Camino Capistrano business area and the Laguna Niguel/Mission Viejo Metrolink Station (located approximately one mile south of the project site). The proposed project would also greatly improve emergency access and response times within the project area by connecting Camino Capistrano to Cabot Road.

For the reasons cited above, the City of Mission Viejo General Plan (General Plan) identifies the proposed project as a future improvement within the Circulation Element's Master Plan of Streets. In addition, the proposed project conforms with the Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) and is included within the Regional Transportation Improvement Program (RTIP).

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*

- North: The MNWD reclamation plant, railroad (i.e., SCRRA/Metrolink/BNSF), and commercial/light industrial land uses are located to the north of the subject site.
- East: Oso Creek and I-5 are located to the east of the subject site.
- South: Railroad (i.e., SCRRA/Metrolink/BNSF), transportation (i.e., Camino Capistrano) and commercial/light industrial land uses are located to the south of the subject site.
- West: Railroad (i.e., SCRRA/Metrolink/BNSF), transportation (i.e., Cabot Road), and commercial/light industrial land uses are located to the west of the subject site.

Based on a site review, the surrounding land uses do not generate significant amounts of diesel related heavy truck traffic. Traffic was primarily limited to passenger vehicles and medium duty delivery trucks.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Table 1 (Opening Year Traffic Volumes) compares the "No Build" and "Build" traffic volumes along the project study area. As shown in Table 1, traffic volumes within the project limits are well below 125,000 vehicles daily. Additionally, the percentage of trucks along this corridor varies between 3 and 7 percent percent, which is below the national average of eight percent. It should be noted that the segments where the heavy truck traffic percentage approaches 7 percent have overall volumes of less than 7,275 vehicles (i.e., 510 heavy trucks). The project also would not increase the percentage of heavy trucks in the study area.

Table 1
Opening Year Traffic Volumes

Study Roadway Segment	Opening Year Without Project		Opening Year With Project	
	ADT	% Heavy Trucks	ADT	% Heavy Trucks
01- Cabot Rd b/t La Paz Rd & Paseo De Valencia	14,974	3%	15,044	3%
02- Cabot Rd b/t Paseo De Valencia & El Paseo	14,347	3%	14,437	3%
03-Cabot Rd s/o Oso Pkwy	18,194	3%	18,484	3%
04-Cabot Rd b/t Merit Circle & Vista Viejo	19,024	3%	18,914	3%
05-Cabot Rd n/o Rapid Falls Road	15,403	3%	15,083	3%
06-Cabot Rd b/t Rapid Falls Rd & Park Entrance	12,897	3%	12,587	3%
07-Cabot Rd b/t Park Entrance & Crown Valley Pkwy	16,219	3%	15,909	3%
08-Cabot Rd s/o Costco Driveway	15,191	3%	15,161	3%
09-Paseo De Colinas b/t Cabot Rd & Sorrento	18,425	3%	18,235	3%
10-Paseo De Colinas b/t Star Dr & Cabot Rd	17,716	3%	17,526	3%
11-El Paseo east of Cabot Rd	9,869	3%	9,869	3%
12-Camino Capistrano n/o Crown Valley Pkwy	3,236	7%	4,396	7%
13-Camino Capistrano n/o Paseo De Colinas	5,585	7%	7,275	7%
14-Forbes Rd n/o Crown Valley Pkwy	5,318	3%	5,318	3%
15-Forbes Rd s/o Crown Valley Pkwy	4,909	3%	4,909	3%
16-Merit Circle w/o Cabot Rd	2,588	3%	2,798	3%
17-Vista Viejo w/o Cabot Rd	3,688	3%	3,488	3%

Table 2 (Opening Year Level of Service) summarizes the forecast future year peak hour intersection LOS for the project limits.

Table 2
Opening Year Level of Service

Study Intersection	Opening Year Without Project		Opening Year With Project	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	V/C – LOS	V/C – LOS	V/C – LOS	V/C – LOS
01-Cabot Road/El Paseo Road	0.344 – A	0.427 – A	0.344 – A	0.427 – A
02-Cabot Road/Oso Parkway	0.616 – B	0.774 – C	0.620 – B	0.782 – C
03-Cabot Road/Merit Circle	0.345 – A	0.395 – A	0.502 – A	0.553 – A
04-Cabot Road/Vista Viejo	0.426 – A	0.350 – A	0.426 – A	0.350 – A
05-Cabot Road/ Rapid Falls Road	0.317 – A	0.336 – A	0.317 – A	0.335 – A
06-Cabot Road/Park Entrance	0.278 – A	0.263 – A	0.278 – A	0.263 – A
07-Cabot Road/Crown Valley Parkway	0.625 – B	0.883 – D	0.618 – B	0.890 – D
08-Cabot Road/Costco Driveway	0.292 – A	0.456 – A	0.283 – A	0.452 – A
09-Cabot Road/Paseo De Colinas	0.598 – A	0.771 – C	0.578 – A	0.788 – C
10-Forbes Road/Crown Valley Parkway	0.558 – A	0.745 – C	0.558 – A	0.745 – C
11-Camino Capistrano/Paseo De Colinas	0.546 – A	0.612 – B	0.557 – A	0.609 – B
12-Camino Capistrano/Avery Parkway	0.476 – A	0.575 – A	0.488 – A	0.568 – A
13-I-5 SB Ramps/Oso Parkway	0.584 – A	0.768 – C	0.574 – A	0.766 – C
14-I-5 NB Ramps/Oso Parkway	0.729 – C	0.934 – E	0.728 – C	0.937 – E
15-I-5 SB Ramps/Crown Valley Parkway	0.706 – C	0.845 – D	0.706 – C	0.841 – D
16-I-5 NB Ramps/Crown Valley Parkway	0.642 – B	0.707 – C	0.643 – B	0.705 – C
17-Kaleidoscope/Crown Valley Parkway	0.463 – A	0.612 – B	0.465 – A	0.612 – B
18-I-5 SB Ramps/Avery Parkway	0.529 – A	0.709 – C	0.530 – A	0.709 – C
19-I-5 NB Ramps/Avery Parkway	0.529 – A	0.791 – C	0.525 – A	0.795 – C
20-Marguerite Parkway/Avery Parkway	1.005 – F	1.305 – F	1.012 – F	1.307 – F

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Table 3 (General Plan Buildout Traffic Volumes) compares the horizon year "No Build" and "Build" traffic volumes along the project study area. As shown in Table 3, traffic volumes within the project limits are well below 125,000 vehicles daily. Additionally, the percentage of trucks along this corridor varies between 3 and 7 percent percent, which is below the national average of eight percent. Segments where the heavy truck traffic percentage approaches 7 percent have overall volumes of less than 8,040 vehicles (i.e., 563 heavy trucks). The project also would not increase the percentage of heavy trucks in the study area. As depicted in Table 3, implementation of the proposed project would not change the traffic patterns in the area. As stated previously, the proposed project would introduce a northerly access to Camino Capistrano that would substantially improve connectivity within the project area. These improvements would accommodate future growth and would not induce additional growth in the area. As a result, the proposed project would not result in a significant increase of diesel vehicles.

Table 3
General Plan Buildout Traffic Volumes

Study Roadway Segment	Forecast General Plan Without Project		Forecast General Plan With Project	
	ADT	% Heavy Trucks	ADT	% Heavy Trucks
01- Cabot Rd b/t La Paz Rd & Paseo De Valencia	17,030	3%	17,100	3%
02- Cabot Rd b/t Paseo De Valencia & El Paseo	16,370	3%	16,460	3%
03-Cabot Rd s/o Oso Pkwy	20,664	3%	20,954	3%
04-Cabot Rd b/t Merit Circle & Vista Viejo	21,630	3%	21,520	3%
05-Cabot Rd n/o Rapid Falls Road	17,520	3%	17,200	3%
06-Cabot Rd b/t Rapid Falls Rd & Park Entrance	13,320	3%	13,010	3%
07-Cabot Rd b/t Park Entrance & Crown Valley Pkwy	16,750	3%	16,440	3%
08-Cabot Rd s/o Costco Driveway	16,490	3%	16,460	3%
09-Paseo De Colinas b/t Cabot Rd & Sorrento	20,660	3%	20,470	3%
10-Paseo De Colinas b/t Star Dr & Cabot Rd	20,150	3%	19,960	3%
11-El Paseo east of Cabot Rd	11,220	3%	11,220	3%
12-Camino Capistrano n/o Crown Valley Pkwy	3,570	7%	4,730	7%
13-Camino Capistrano n/o Paseo De Colinas	6,350	7%	8,040	7%
14-Forbes Rd n/o Crown Valley Pkwy	6,050	3%	6,050	3%
15-Forbes Rd s/o Crown Valley Pkwy	5,525	3%	5,525	3%
16-Merit Circle w/o Cabot Rd	2,940	3%	3,150	3%
17-Vista Viejo w/o Cabot Rd	4,190	3%	3,990	3%

Additionally, Table 4 (General Plan Buildout Level of Service) summarizes the forecast future year peak hour intersection LOS for the project limits. As shown in Table 4, implementation of the proposed project would not appreciably deteriorate the LOS along the study area. The traffic analysis was based on a regional traffic model, which is set on input variables such as population, households, employment, school enrollment, income, traffic counts, traffic speeds, intersection configuration, and planned roadway networks from a variety of sources such as locally approved General Plan land use entitlements, local planning department input, and state and federal data sources. The model forecasts the demand for future transportation infrastructure by prediction of future traffic patterns based on the input variables. Use of the regional traffic model provides consistency with other traffic study prepared for the City of Mission Viejo. Forecast General Plan buildout with project conditions assumes the future planned widening of Crown Valley Parkway at the I-5 interchange consistent with General Plan buildout without project conditions.

Table 4
General Plan Buildout Level of Service

Study Intersection	Forecast General Plan Buildout Without Project		Forecast General Plan Buildout With Project	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	V/C – LOS	V/C – LOS	V/C – LOS	V/C – LOS
01-Cabot Road/El Paseo Road	0.445 – A	0.465 – A	0.445 – A	0.465 – A
02-Cabot Road/Oso Parkway	0.681 – B	0.816 – D	0.680 – B	0.824 – D
03-Cabot Road/Merit Circle	0.356 – A	0.409 – A	0.513 – A	0.568 – A
04-Cabot Road/Vista Viejo	0.440 – A	0.362 – A	0.440 – A	0.362 – A
05-Cabot Road/ Rapid Falls Road	0.326 – A	0.353 – A	0.326 – A	0.352 – A
06-Cabot Road/Park Entrance	0.287 – A	0.270 – A	0.287 – A	0.270 – A
07-Cabot Road/Crown Valley Parkway	0.730 – C	0.980 – E	0.723 – C	0.988 – E
08-Cabot Road/Costco Driveway	0.368 – A	0.480 – A	0.359 – A	0.477 – A
09-Cabot Road/Paseo De Colinas	0.698 – B	0.798 – C	0.678 – B	0.816 – D
10-Forbes Road/Crown Valley Parkway	0.669 – B	0.817 – D	0.668 – B	0.817 – D
11-Camino Capistrano/Paseo De Colinas	0.574 – A	0.651 – B	0.585 – A	0.648 – B
12-Camino Capistrano/Avery Parkway	0.528 – A	0.613 – B	0.541 – A	0.603 – B
13-I-5 SB Ramps/Oso Parkway	0.637 – B	0.824 – D	0.627 – B	0.822 – D
14-I-5 NB Ramps/Oso Parkway	0.755 – C	0.980 – E	0.754 – C	0.984 – E
15-I-5 SB Ramps/Crown Valley Parkway	0.704 – C	0.884 – D	0.704 – C	0.881 – D
16-I-5 NB Ramps/Crown Valley Parkway	0.648 – B	0.684 – B	0.649 – B	0.683 – B
17-Kaleidoscope/Crown Valley Parkway	0.566 – A	0.700 – B	0.568 – A	0.701 – C
18-I-5 SB Ramps/Avery Parkway	0.556 – A	0.780 – C	0.557 – A	0.774 – C
19-I-5 NB Ramps/Avery Parkway	0.618 – B	0.850 – D	0.614 – B	0.854 – D
20-Marguerite Parkway/Avery Parkway	1.081 – F	1.390 – F	1.087 – F	1.392 – F

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT
See Above.

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT
See Above.

Describe potential traffic redistribution effects of congestion relief *(impact on other facilities)*

The proposed project would introduce a northerly access to Camino Capistrano that would substantially improve connectivity within the project area. Instances where the operations may slightly deteriorate are due to:

- Where operations are shown to slightly deteriorate during the "with project" scenario, typically the changes are minor if not negligible with most intersections changing by 1 percent or less. At some intersections the change is 0.1 percent (one one-thousandth change), indicating a very slight change that is not visible to the motorists at the intersection.
- The increase in connectivity for Camino Capistrano to Cabot Road was expected to increase traffic volumes at study intersections along Cabot Road. The higher volumes along Cabot Road explain why intersections along this parallel roadway may have slightly worse results.

The proposed project would result in a reduction in traffic congestion at the Avery Parkway/I-5 interchange by allowing convenient access to other I-5 interchanges (i.e., Crown Valley Parkway, Oso Parkway, and La Paz Road) via Cabot Road. The proposed project would also provide improved access to the Camino Capistrano business area and the Laguna Niguel/Mission Viejo Metrolink Station (located approximately one mile south of the project site) and improve emergency access and response times within the project area by connecting Camino Capistrano to Cabot Road.

Comments/Explanation/Details *(attach additional sheets as necessary)*

The EPA's March 2006 guidance document *Transportation Guidance for Qualitative Hot-spot Analysis in PM2.5 and PM10 Nonattainment and Maintenance Areas* references a two step criteria to identify "a significant volume of diesel truck traffic." The first criterion is facilities with greater than 125,000 ADT volumes. If the first criterion is met, the second criterion is that eight percent or more of said traffic volumes (i.e., 10,000 vehicles or more) are diesel truck traffic volumes.

As discussed above, traffic volumes within the project limits are less than 125,000 vehicles daily. Additionally, the percentage of trucks along this corridor varies between 3 and 7 percent, which is below the second criterion of eight percent trucks. Segments where the heavy truck traffic percentage approaches 7 percent have overall volumes of less than 8,040 vehicles (i.e., 563 heavy trucks) during the horizon year. Volumes are lower during the opening year. The project also would not increase the percentage of heavy trucks in the study area. Therefore, implementation of the proposed project would not cause a significant increase of diesel vehicles (trucks). According to the *Transportation Conformity Guidance for Qualitative Hot-spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas*, this project is not a project of air quality concern under 40 CFR 93.123(b)(1).

The proposed project would not conflict with an applicable plan, policy, or regulation of an agency with jurisdiction over the project. The proposed project is also consistent with Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) (RTP ID ORA020115) and Regional Transportation Improvement Program (RTIP) (RTIP ID ORA020115) and is intended to meet the traffic needs in the area based on local land use plans.